Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

 e^{-2^k}

1. (currently amended) A method of authenticating a user agent to a server using SIP (Session Initiation Protocol) (SIP) messages, the method comprising:

forwarding an SIP request from the user agent to the server;

forwarding a request for authentication from the server to the user agent in response to the SIP request, the request for authentication including information that the authentication will be performed using a UMTS (Universal Mobile Telecommunications System) (UMTS) AKA (Authentication and Key Agreement) (AKA) mechanism;

forwarding an authentication response from the user agent to the server in response to the request for authentication in accordance with the UMTS AKA mechanism; and

performing an invoked SIP procedure on the server in response to the SIP request if the authentication is deemed successful in view of the authentication response.

2. (currently amended) The method of claim 1, wherein the SIP request comprising comprises one of an a SIP INVITE request or an a SIP REGISTER request.

- 3. (currently amended) The method of claim 1, wherein the request for authentication comprising comprises one of an SIP 401 Unauthorized code or an a SIP 407 Proxy Authentication Required code.
- 4. (currently amended) The method of claim 3, wherein the request for authentication comprising comprises UMTS AKA RAND (RANDom challenge) and AUTN (authentication token) vectors.
- 5. (currently amended) The method of claim 4, wherein the RAND and AUTN factors being vectors are included in an SIP WWW-Authenticate or Proxy-Authenticate response header field.
- 6. (currently amended) The method of claim 1, wherein the authentication response comprising comprises one of a UMTS AKA RES (response) code, or an AUTS (synchronization failure parameter) code or an error code.
- 7. (currently amended) The method of claim 6, wherein the authentication response being is included in an a SIP Authorization or Proxy-Authorization header field.
- 8. (currently amended) The method of claim 1, wherein the invoked procedure comprising comprises an acknowledgement response comprising an-SIP 200 code.
- 9. (currently amended) A program storage device readable by a machine, tangibly embodying a program of instructions executable by the

machine to perform a method of authenticating a user agent to a server using SIP Session Initiation Protocol (SIP) messages, the method comprising:

forwarding an-a_SIP request from the user agent to the server;

forwarding a request for authentication from the server to the user agent in response to the SIP request, the request for authentication including information that the authentication will be performed using a UMTS (Universal Mobile Telecommunications System) (UMTS) AKA (Authentication and Key Agreement) (AKA) mechanism;

forwarding an authentication response from the user agent to the server in response to the request for authentication in accordance with the UMTS AKA mechanism; and

performing an invoked SIP procedure on the server in response to the SIP request if the authentication is deemed successful in view of the authentication response.

- 10. (currently amended) The storage device of claim 9, wherein the SIP request comprising comprises one of an SIP INVITE request or an SIP REGISTER request.
- 11. (currently amended) The storage device of claim 9, wherein the request for authentication comprising comprises one of an a SIP 401 Unauthorized code or an a SIP 407 Proxy Authentication Required code.
- 12. (currently amended) The storage device of claim 11, wherein the request for authentication comprising comprises UMTS AKA RAND (RANDom challenge) and AUTN (authentication token) vectors.

- 13. (currently amended) The storage device of claim 12, wherein the RAND and AUTN factors being vectors are included in an SIP WWW-Authenticate or Proxy-Authenticate response header field.
- 14. (currently amended) The storage device of claim 9, wherein the authentication response comprising comprises one of a an UMTS AKA RES (response) code, or an AUTS (synchronization failure parameter) code or an error code.
- 15. (currently amended) The storage device of claim 14, wherein the authentication response being is included in an SIP Authorization or Proxy-Authorization header field.
- 16. (currently amended) The storage device of claim 9, wherein the invoked procedure comprising comprises an acknowledgement response comprising an SIP 200 code.